

REMARKS

Upon receipt of this response, the Examiner is respectfully requested to contact the undersigned representative of the Applicant to arrange a telephone interview concerning the inventive merits of this application.

The present Response is submitted in response to the official action mailed July 6, 2011 and the Applicant respectfully requests entry of the above amendments to the claims and the following arguments and discussions into the record of the case before reconsideration of the present Application. It is the Applicant's belief and position that the presently submitted amendments, arguments and discussions place the above identified application in condition for allowance, or at least clarify and summarize the Applicant's position on all issues for appeal should this be necessary.

Claims 6-24 are first rejected, under 35 U.S.C. § 101, as directed to non-statutory subject matter under the provisions of the machine/transformation test of *Bilski*. The Applicant acknowledges and respectfully traverses the raised 35 U.S.C. § 101 rejection in view of the following remarks.

After review of the requirements of the *Bilski* tests for statutory subject matter as set forth in Interim Guidance for Determining Subject Matter Eligibility for Process Claims in View of *Bilski v. Kappas*, by Robert W. Bahr, Acting Associate Commissioner for Patent Examination Policy on July 27, 2010 and published in the Federal Register/Vol. 75, No. 143/Tuesday, July 27, 2010, the claims are amended to meet and conform to the requirements of *Bilski* relating to statutory subject matter.

It will be noted that these amendments are fully supported by the specification, drawings and claims of the present Application as originally filed and do not add any new matter to or alter the subject matter or scope of the invention, the specification and drawings of the claims. Accordingly, the Applicant respectfully requests that the Examiner reconsider and withdraw all rejections of the claims under 35 U.S.C. § 101.

Claims 6 - 20 are further rejected, under 35 U.S.C. 103(a), over Hrazdera 1595 (U.S. Patent No. 6,942,595) in view of Applicant's admitted prior art found in the Background of the Invention section of the substitute specification at paragraphs [0006] - [0009]. The Applicant acknowledges and respectfully traverses the raised 35 U.S.C. § 103 rejection in view of the following remarks.

First considering the present invention as recited in the claims as amended herein above, the present invention relates to a method of operating a traveling power takeoff shaft connected by a clutch to a drive motor for driving both a tractor and a trailer, the tractor being driven by the drive motor and the trailer being driven by the drive motor through the clutch and power takeoff shaft.

The method includes the steps of providing at least three discrete, shiftable power takeoff gear stages, defining for the least three discrete, shiftable power takeoff stages and higher and lower motor rotational speed threshold values for the drive motor corresponding to

a next lower power takeoff stage, sensing by means of a sensor a wheel rotational speed or a vehicle speed of the trailer or tractor, and, by operation of a tractor electronic system, comparing the wheel rotational speed to the lower motor rotational speed threshold value, shifting to the next lower power takeoff stage when the rotational speed of the drive motor achieves the lower motor rotational speed threshold value, and maintaining an optimal travel speed for both the tractor and the trailer by shifting to a desired one of the least three discrete shiftable power takeoff stages, so that both the tractor and the trailer travel together with one another substantially as an integrated unit and at a substantially identical speed.

As described in the specification of the present application, when shifting of the power takeoff stage, which controls the speed of the trailer, it is important to ensure that the front wheels of the tractor always remain firmly in contact with the ground in order to facilitate steering of the tractor, especially on hilly terrain (see paragraph [0016] of the pending specification, for example). By way of example, it is to be appreciated that in the event that the trailer is traveling at a speed (slightly) faster than the speed of the tractor, and both the tractor and the trailer were transitioning from a horizontal traveling surface to an upwardly inclined traveling surface, which is particularly prevalent on hilly terrain, the trailer could impose a force on the rear end of the tractor that tends to pivot or raise the front wheels of the tractor away from and out of contact with the ground, thereby compromising the ability of the driver to steer the tractor and this could create a potentially hazardous situation. The presently claimed invention avoids this possibility by adequately controlling the speed of the trailer and initiating appropriate upshifts and downshifts for the power take off (PTO) so as to match the speed of the trailer to the speed of the tractor.

Turning now to the applied art, the base reference of Hrazdera `595 relates to a control system for the drive of a power takeoff of a tractor wherein the power takeoff is used to drive an implement or device that is mounted directly onto the tractor. According to Hrazdera `595, the tractor includes an engine, a continuously variable transmission (CVT) directly connected to the engine via a shaft, a second shaft which extends from the CVT to a power takeoff, and a control device including a processor which processes a number of input signals from the tractor and the implement attached to the power takeoff and passes output signals to the CVT for the drive ratio to be obtained.

Hrazdera `595 describes, at column 6, lines 66 and 67 for example, the CVT power takeoff and control system as being used with an implement built onto the tractor, such as a lift mechanism mounted on the tractor and powered by the CVT power takeoff stub, rather than a trailer attached to the tractor. It is therefore apparent that there are a number of fundamental distinctions between the present invention, as recited in the claims, and the teachings suggestions and motivations of Hrazdera `595.

First, and for example, Hrazdera `595 describes the CVT power takeoff and control system associated therewith only with respect to *driving an implement or device that is mounted directly onto the tractor and does not even mention*, much less teach, suggest or even hint at

the use of any form of power takeoff *to drive the wheels of a trailer towed by the tractor*. As such, Hrazdera `595 does not even contemplate the problems that may arise from using a power takeoff mechanism driven by the same motor that drives the tractor to drive a trailer that is being towed by the tractor, or any approach for solving the problems that may arise from such an arrangement.

As a consequence, it is respectfully submitted that Hrazdera `595 does not describe a system for sensing, by means of a sensor, a wheel rotational speed or a vehicle speed of a tractor or trailer, and, by operation of a tractor electronic system, comparing the wheel rotational speed to the lower motor rotational speed threshold value, shifting to the next lower power takeoff stage when the rotational speed of the drive motor achieves the lower motor rotational speed threshold value, and maintaining an optimal travel speed for both the tractor and the trailer by shifting to a desired one of the least three discrete shiftable power takeoff stages, so that both the tractor and the trailer travel together with one another substantially as an integrated unit and at a substantially identical speed.

In fact, *the arrangement taught by Hrazdera `595 is designed solely to maintain the rotational speed of the power takeoff drive to the implement or device mounted to the tractor at a speed that is optimal for the implement or device* independently of and separately from the rotational speeds of the motor, tractor and trailer. As such, and again, Hrazdera `595 does not teach, suggest or even contemplate a system for controlling a CVT power takeoff shaft so that the rotational speed of the power takeoff shaft used to drive a trailer, which is a vehicle that is attached to but separate from, at a speed that is compatible with the rotational speeds of the tractor or of the tractor's wheels. Hrazdera `595 thereby fails in any way to teach, suggest, disclose or remotely hint at the use of using a drive motor and a power takeoff for driving a tractor and a trailer, but rather specifically describes and claims the use of a drive motor and a power takeoff for operating a hydraulic lift implement.

In addition, Hrazdera `595 teaches and suggests only a power takeoff mechanism that is connected from a motor by means of a CVT and does not teach or suggest a system for driving a power takeoff having at least three shiftable discrete, fixed power takeoff stages and being connected to the drive motor. Hrazdera `595, in fact, thereby teaches a power takeoff mechanism that is completely and fundamentally different in structure, operation and characteristics from that of the present invention as recited in the claims.

In still further fundamental distinction between the present invention and the teachings of Hrazdera `595, Hrazdera `595 does not teach, suggest, disclose or hint at the use of a conventional transmission for driving a power takeoff shaft but instead teaches only use of a CVT to drive a power takeoff shaft. In this regard, a careful reading of Hrazdera `595, such as at column 4, lines 33-37, shows that Hrazdera `595 mentions the use of a conventional transmission solely for the driving of the wheels of the tractor and not as a means for driving a power takeoff shaft and insists that a power takeoff shaft be driven only through a CVT.

Hrazdera `595 does not teach, suggest, disclose or hint at any form of system for comparing the wheel rotational speed of a trailer or tractor to the lower motor rotational speed threshold value, shifting to the next lower power takeoff stage when the rotational speed of the drive motor achieves the lower motor rotational speed threshold value, and maintaining an optimal travel speed for both the tractor and the trailer by shifting to a desired one of the least three discrete shiftable power takeoff stages, so that both the tractor and the trailer travel together with one another substantially as an integrated unit and at a substantially identical speed

In fact, and in still further fundamental distinction between Hrazdera `595 and the present invention, Hrazdera `595 states, such as at column 6, lines 5-25, that the power takeoff shaft should be driven only by a CVT and that the use of a clutch [and necessary components for operating a gearbox] is omissible, "no longer necessary" and a "compromise" in comparison to the functional advantages of the control system for driving the power takeoff as described by Hrazdera `595, that is, solely through a CVT. As such, it is respectfully submitted that Hrazdera `595 thereby fails in any way to teach, disclose, suggest or remotely hint at the use of a "conventional transmission" for driving a power takeoff in the manner recited in the claims of the present application, and instead teaches that a power takeoff shaft should be driven solely and only through a CVT and, in fact, teaches directly away from the use of any form of conventional transmission to drive a power takeoff shaft.

Also in this regard, it is noted that the Examiner regards the Applicant's position that Hrazdera `595 not only does not teach or suggest present invention but, in fact, teaches away from the present invention as not in keeping with the broadest interpretation of Hrazdera `595 because, as the Examiner states, Hrazdera `595 "does not actually say it [the conventional transmission] *must* be omitted". The Applicant disagrees with the Examiner's position that a prior art reference must explicitly teach that something is to be avoided or eliminated in order to be held as a teaching away. Hrazdera `595 is explicitly clear that the conventional transmission is not required, that to use the conventional transmission in any way to control the rotational speed of the power takeoff shaft is contrary to the teachings of Hrazdera `595, and that a CVT, and only a CVT, is to be used to control the rotational speed of the power takeoff shaft. In addition, the Applicant can find no language in 35 U.S.C. 102 or 35 U.S.C. 103 that even implies that a reference must clearly and explicitly teach that something is to be avoided or eliminated in order to be held as a teaching away, nor is the Applicant aware of any case decisions that would support the Examiner's interpretation of what would comprise a teaching away.

It is the Applicant's belief and position that the fact that a reference teaches that whatever is taught in the reference is beneficial over what is described and claimed in an application or that the reference clearly and explicitly teaches that the teachings of the reference are to be used in place of what is described or claimed in an application clearly comprises a teaching away for the purposes of 35 U.S.C. 102 and 35 U.S.C. 103.

For at least the above reasons, therefore, it is the Applicant's position that Hrazdera `595 fails to in any way teach, suggest, disclose or remotely hint at any applicable aspect of the present invention, as recited in the claims as amended herein above, to those of ordinary skill in the relevant art under the requirements and provisions of 35 U.S.C. 103. The Applicant accordingly respectfully requests that the Examiner reconsider and withdraw all rejections of the claims under 35 U.S.C. 103 in view of Hrazdera `595.

Next considering the Applicant's admitted prior art as cited by the Examiner, that is, EP 0 511 480 B1, this reference merely relates to changeable transmission for the drive of a power take-off shaft as applied to a farm tractor. EP 0 511 480 B1 discloses a changeable transmission for the drive of a power take-off shaft as applied to a farm tractor, wherein an input shaft with at least two driving gears, an output shaft with at least two free gears and an interposed, shiftable, sleeve clutch whereby the free gears are in constant mesh with the driving gears but free with respect to the input shaft. Between the driving gears, in addition a lamella clutch which can be hydraulically activated, and at least one driving gear is located on each side of the lamella clutch and is rigidly bound to its housing.

Even a casual examination of EP 0 511 480 B1 shows that this reference describes only the arrangement of multiple gears and a clutch for a power takeoff shaft connected from a tractor motor and that EP 0 511 480 B1 does not have any teaching, suggestion, disclosure or hint as to how, or for what purposes, the gearbox, clutch and power takeoff shaft might be employed or how the gearbox, clutch and power takeoff shaft might be controlled for any particular purpose.

EP 0 511 480 B1 thereby does not teach or suggest any form or aspect of system for sensing, by means of a sensor, a wheel rotational speed or a vehicle speed of a tractor or trailer, and, by operation of a tractor electronic system, comparing the wheel rotational speed to the lower motor rotational speed threshold value, shifting to the next lower power takeoff stage when the rotational speed of the drive motor achieves the lower motor rotational speed threshold value, and maintaining an optimal travel speed for both the tractor and the trailer by shifting to a desired one of the least three discrete shiftable power takeoff stages, so that both the tractor and the trailer travel together with one another substantially as an integrated unit and at a substantially identical speed.

It is therefore the Applicant's position that the Applicant's admitted prior art as cited by the Examiner does not teach, suggest, show or remotely hint at the present invention, as recited in the claims as amended herein above, to those of ordinary skill in the relevant art under the requirements and provisions of 35 U.S.C. 103. The Applicant accordingly respectfully requests that the Examiner reconsider and withdraw all rejections of the claims under 35 U.S.C. 103 over the Applicant's admitted prior art as cited by the Examiner.

Next considering the combination of Hrazdera `595 and the Applicant's admitted prior art that is alleged by the Examiner, the Applicant reminds the Examiner that the initial burden to make a *prima facie* case of obviousness is on the Examiner, *In re Bell*, 991 F.2d 781,783

(Fed. Cir. 1993), and that the Examiner must establish the *prima facie* case of obviousness by an analysis of the prior art and a showing of the *prima facie* case of obviousness based on the prior art and the prior art alone. In order to make a *prima facie* case of obviousness, the Examiner must establish that the teachings of the prior art would have suggested the claimed subject matter to a person of ordinary skill in the art and that all the claim limitations are taught or suggested in the reference cited by the Examiner. *In re Kotzab*, 217 F.3d 1635, 1370 (Fed. Cir. 2000).

In addition, and as articulated by the Supreme Court, the Examiner must establish that there is a reason, outside of the teachings of the claimed invention, to combine the known elements. *KSR Int'l Co. v. Teleflex, Inc.* 550 US 398 (2007). Accordingly, in order to make a *prima facie* case of obviousness it still “remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed.” *Id.* The Applicant reminds the Examiner that the currently applicable case law also requires that “[a] reference qualifies as prior art for an obviousness determination under §§ 103 only when it is analogous to the claimed invention.” *In re Klein*, ___ F.3d ___ (Fed. Cir. 2011) (citing *Innovention Toys, LLC, v. MGA Entertainment, Inc.*, No. 2010-1290, slip op. at 12 (Fed. Cir. Mar. 21, 2011); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004); *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992). A reference is considered analogous if it relates to the specific problem that the inventor was attempting to solve. “If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection...If it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.” *In re Clay*, 966 F.2d 659. See also *In re Klein*, ___ F.3d ___ (Fed. Cir. 2011) (reversing a BPAI decision and finding five separate references non-analogous art because none of the references individually related to the specific problem the inventor was addressing).

According to applicable case law, therefore, it is respectfully submitted that neither Hrazdera `595 nor the Applicant's admitted prior art nor the alleged combination of Hrazdera `595 with the Applicant's admitted prior art form are analogous references under the requirements and provisions of 35 U.S.C. 103 as interpreted under the currently applicable case law. Specifically, neither Hrazdera `595 nor the Applicant's admitted prior art describes, discusses or even suggests the use of a power takeoff to power a trailer towed by the tractor, the problems that might arise from such an arrangement. In addition, and for these reasons, neither Hrazdera `595 nor the Applicant's admitted prior art describes, discusses or even suggests any form or aspect of system for sensing, by means of a sensor, a wheel rotational speed or a vehicle speed of a tractor or trailer, and, by operation of a tractor electronic system, comparing the wheel rotational speed to the lower motor rotational speed threshold value, shifting to the next lower power takeoff stage when the rotational speed of the drive motor achieves the lower motor rotational speed threshold value, and maintaining an optimal travel speed for both the tractor and the trailer by shifting to a desired one of the least three discrete

shiftable power takeoff stages, so that both the tractor and the trailer travel together with one another substantially as an integrated unit and at a substantially identical speed.

It is therefore the Applicant's position that neither Hrazdera `595 nor the Applicant's admitted prior art nor any permissible combination of Hrazdera `595 with the Applicant's admitted prior art comprise a valid teaching or suggestion of the present invention, under the requirements of 35 U.S.C. 103, since neither Hrazdera `595 nor the Applicant's admitted prior art nor any proper combination thereof are analogous references to the the presently claimed invention.

Further in this regard, it is currently the applicable case law that in rejecting claims under 35 U.S.C. §§ 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073-74, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion, or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

While the Examiner has alleged that Hrazdera `595 and the Applicant's admitted prior art are proper and render the presently claimed invention obvious, a mere allegation is not sufficient under the applicable case law. Accordingly, it is the Applicant's position that the Examiner has failed to establish a factual basis for the rejection of the claims of the present Application under 35 U.S.C. 103. In particular, it is respectfully submitted that the Examiner has not established and cannot establish any factual basis that Hrazdera `595 or the Applicant's admitted prior art or the alleged combination of Hrazdera `595 and the Applicant's admitted prior art teaches or suggests the use of a power takeoff to power a trailer towed by the tractor or any form or aspect of system for sensing, by means of a sensor, a wheel rotational speed or a vehicle speed of a tractor or trailer, and, by operation of a tractor electronic system, comparing the wheel rotational speed to the lower motor rotational speed threshold value, shifting to the next lower power takeoff stage when the rotational speed of the drive motor achieves the lower motor rotational speed threshold value, and maintaining an optimal travel speed for both the tractor and the trailer by shifting to a desired one of the least three discrete

shiftable power takeoff stages, so that both the tractor and the trailer travel together with one another substantially as an integrated unit and at a substantially identical speed.

The Applicant notes with regard to obviousness type rejections, that the currently applicable case law holds that if the base reference, that is, Hrazdera `595 or the Applicant's admitted prior art, is modified by the inclusion of teachings of the supporting reference, again Hrazdera `595 or the Applicant's admitted prior art, in the manner suggested by the official action, and the proposed modification would render the the base reference unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900,221 USPQ 1125 (Fed. Cir. 1984).

In the present case, the base reference, Hrazdera `595, states explicitly that the output rotational speed of the power takeoff shaft is to be controlled solely by a CVT, which provides a continuously variable gear ratio, and that the use of any form of conventional transmission having discrete gear ratios is to be eliminated as regards the power takeoff shaft. Although Hrazdera `595 suggests that a conventional transmission may be used to drive the wheels of the tractor, it is clear that any use of a conventional transmission is to be limited to driving the tractor wheels, which is completely unrelated to control of the output speed of the power takeoff shaft. As discussed above, therefore, Hrazdera `595 clearly and explicitly holds that a CVT, and only a CVT, is to be used do drive the power takeoff shaft and the use of a conventional transmission in association with the power takeoff shaft is to be avoided as against the principles taught by Hrazdera `595.

The Applicant's admitted prior art reference—that is, EP 0 511 480 B1—does not even mention CVTs and teaches that the power takeoff shaft is to be driven by a conventional multi-gear gearbox, which is exactly contrary to the teachings of Hrazdera `595. The use of the admitted prior art reference to modify the teachings of Hrazdera `595 would therefore not only be directly contrary to and against the teachings of Hrazdera `595 and would not only completely change fundamental operating principles of the Hrazdera `595 system, but if implemented would render the Hrazdera `595 system useless and non-function for its intended purposes.

It is further the Applicant's position that the only teaching of the present invention as recited in the claims is found only in the specification of the present application and that the Examiner's interpretation and combination of Hrazdera `595 and the Applicant's admitted prior art appears to be based only the specification and claims of the present Application rather than upon the teachings and suggestions of Hrazdera `595 and the admitted prior art, which is directly contrary to and in conflict with the requirements and provisions of 35 U.S.C. 103. That is, the raised rejection appears to be based upon the improper use of hindsight rather than any teaching, suggestion, disclosure, motivation and/or hints contained in either Hrazdera `595 or the Applicant's admitted prior art reference, namely, EP 0 511 480 B1.

It is therefore the Applicant's position that, for at least the above discussed reasons, that the applied combination of Hrazdera `595 and the Applicant's admitted prior art does not

comprise a valid combination, under the requirements and provisions of 35 U.S.C. 103, and , in any event, fails to in any way teach, suggest, disclose or remotely hint at the present invention under the requirements and provisions of 35 U.S.C. 103. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of the claims, under 35 U.S.C. 103 in view of Hrazdera `595 and the Applicant's admitted prior art, and allow the presently pending claims.

Lastly, and notwithstanding the Applicant's position that claims 6 - 24 are now allowable over the cited prior art, the Applicant submits new claim 25 in which the above discussed distinctions of the present invention over the cited prior art are still further emphasized. It is the Applicant's position that new claim 25 is fully and patentably distinguished over and from the cited prior art for at least the reasons discussed above. It will be noted that new claim 25 is fully supported by the specification, the drawings and the claims as originally filed and that new claim 25 does not add any new matter to the invention, the specification, the drawings or the claims. The Applicant accordingly respectfully requests allowance of new claim 25 are presented herein above.

In the event that any further amendment to any of the claims of this application is believed or deemed necessary, then the Examiner is invited to contact the undersigned representative of the Applicant in order to discuss further amendment of the above identified application.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Hrazdera `595 (U.S. Patent No. 6,942,595) reference of the Applicant's admitted prior art, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

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In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



Michael J. Bujold, Reg. No. 32,018
Customer No. 020210
Davis & Bujold, P.L.L.C.
112 Pleasant Street
Concord, NH 03301-2931
Telephone 603-226-7490
Facsimile 603-226-7499
E-mail: patent@davisandbujold.com